

PREVENTION OF SIGNIFICANT DETERIORATION PERMIT

NEW SOURCE PERFORMANCE STANDARDS PERMIT

STATIONARY SOURCE PERMIT TO CONSTRUCT AND OPERATE

Part I and III of this permit replaces your Prevention of Significant Deterioration permit dated February 21, 1990 and amended on April 9, 1990, December 16, 1993, May 13, 1996, January 9, 2003, and November 5, 2003.

Part II and III of this permit supersedes your minor New Source Review permit dated February 21, 1990 and amended on April 9, 1990, December 16, 1993, May 13, 1996, January 9, 2003, and November 5, 2003.

In compliance with the Federal Clean Air Act and the Commonwealth of Virginia  
Regulations for the Control and Abatement of Air Pollution,

Dominion Generation  
Altavista Power Station  
104 Wood Lane  
Altavista, Virginia 24517-1450  
Registration No. 30859  
County-Plant No. 031-0156

is authorized to construct and operate

an electricity generating facility

located at

104 Wood Lane in Altavista, Virginia

in accordance with the Conditions of this permit.

Approved on DRAFT.

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T.L. Henderson  
Regional Director, Department of Environmental Quality

Permit consists of 33 pages.

Part I – Prevention of Significant Deterioration Specific Conditions 1 to 62.

Part II – Minor New Source Review Specific Conditions 63 to 123

Part III – Document List, 87 items.

## INTRODUCTION

This permit approval is based on the permit application dated May 4, 1988 including amendment information referenced in Part III of this permit. Any changes in the permit application specifications or any existing facilities which alter the impact of the facility on air quality may require a permit. Failure to obtain such a permit prior to construction may result in enforcement action. In addition, this facility may be subject to additional applicable requirements not listed in this permit.

Words or terms used in this permit shall have meanings as provided in 9 VAC 5-10-20 of the State Air Pollution Control Board Regulations for the Control and Abatement of Air Pollution. The regulatory reference or authority for each condition is listed in parentheses () after each condition.

Annual requirements to fulfill legal obligations to maintain current stationary source emissions data will necessitate a prompt response by the permittee to requests by the DEQ or the Board for information to include, as appropriate: process and production data; changes in control equipment; and operating schedules. Such requests for information from the DEQ will either be in writing or by personal contact.

The availability of information submitted to the DEQ or the Board will be governed by applicable provisions of the Freedom of Information Act, §§ 2.2-3700 through 2.2-3714 of the Code of Virginia, § 10.1-1314 (addressing information provided to the Board) of the Code of Virginia, and 9 VAC 5-170-60 of the State Air Pollution Control Board Regulations. Information provided to federal officials is subject to appropriate federal law and regulations governing confidentiality of such information.

1. The equipment installed consists of:

- two (2)  $382.5 \times 10^6$  Btu per hour primary coal spreader stoker boilers with a multiple cyclone collector, a lime-water injection spray dryer, and a fabric filter;
- one (1)  $146.4 \times 10^6$  Btu per hour auxiliary natural gas/No. 2 oil boiler;
- a coal handling system (unloading, storage, conveying);
- an ash disposal and flue gas desulfurization product system;
- a lime handling system (unloading, storage);
- an ammonia handling system (unloading, storage),
- a wood dust handling system (unloading, storage, pulverizer, conveyor feed system),

- a wood chip handling system (unloading, storage, conveyor feed system),
- two (2) diesel engines (including one emergency boiler feedwater pump with a maximum rated capacity of 126 brake horsepower, and one firewater pump with a maximum rated capacity of 208 brake horsepower), and
- one (1) 100,000-gallon capacity, above ground storage tank for distillate oil.

Specifications included in the permit under this Condition are for informational purposes only and do not form enforceable terms or conditions of the permit.  
(9 VAC 5-80-1985 D and 9 VAC 80-1180 D 3)

**PART I – Prevention of Significant Deterioration Permit Specific Conditions**

Conditions 2 through 62 are established pursuant to 9 VAC 5-80-1605 *et seq.* The conditions are federally enforceable under the federal Clean Air Act.

2. Altavista Power Station is located at 104 Wood Lane off Business Route 29 next to the Town and Country Shopping Center in Altavista, Virginia.  
(9 VAC 5-80-1985 D)
3. Construction and operation shall be as proposed in the permit application dated May 4, 1988, including amendments referenced in Part III.  
(9 VAC 5-80-1985 D)
4. Particulate emissions from the primary coal boilers shall be controlled by an in-line multiple cyclone, a lime water injection spray dryer, and a fabric filter rated at 99.9 percent control efficiency. The control systems shall be provided with adequate access for inspection. The fabric filter may be bypassed during non-coal fuel boiler start-ups to alleviate potential moisture damage to the fabric filter at low start-up temperatures. Each fabric filter shall be equipped with a device to continuously measure pressure drop.  
(9 VAC 5-80-1985 E, 9 VAC 5-50-280, and 9 VAC 5-80-1705)
5. Particulate emissions from the auxiliary boiler shall be controlled by combustion efficiency.  
(9 VAC 5-80-1985 E, 9 VAC 5-50-280, and 9 VAC 5-80-1705)
6. Particulate emissions from the wood storage silo, the emergency truck loading station, coal feed silos, lime storage silo, recycle bin, and discharge storage silo shall be controlled by fabric filters. The fabric filters shall be provided with adequate access for inspection.  
(9 VAC 5-80-1985 E, 9 VAC 5-50-280, and 9 VAC 5-80-1705)

7. Sulfur dioxide emissions from the primary coal boilers shall be controlled by a water-lime injection spray dryer at 92 percent control efficiency. The control system shall be provided with adequate access for inspection.  
(9 VAC 5-80-1985 E, 9 VAC 5-50-280, and 9 VAC 5-80-1705)
8. Nitrogen oxide emissions from the primary coal boilers shall be controlled by a continuous coal feed system, staged combustion low excess air, and selective non-catalytic reduction.  
(9 VAC 5-80-1985 E, 9 VAC 5-50-280, and 9 VAC 5-80-1705)
9. Fugitive dust emissions from coal unloading, feeding, and conveying, shall be controlled by wet suppression with surfactant as necessary.  
(9 VAC 5-80-1985 E and 9 VAC 5-50-90)
10. The wood pulverizer systems shall include fabric filters for the collection of the pulverized wood fuel. The fabric filters shall be provided with adequate access for inspection.  
(9 VAC 5-80-1985 E, 9 VAC 5-50-280, and 9 VAC 5-80-1705)
11. Lime slaker emissions shall be controlled by fabric filter. The control system shall be provided with adequate access for inspection and shall have a device for continuous measurement of pressure drop.  
(9 VAC 5-80-1985 E, 9 VAC 5-50-280, and 9 VAC 5-80-1705)
12. The coal crusher and the wood pulverizer shall be enclosed to prevent fugitive dust emissions. A fabric filter or other dust control methods, as approved by the South Central Regional Office, may be required after visible inspection by Agency personnel.  
(9 VAC 5-80-1985 E and 9 VAC 5-50-90)
13. All conveyor belt returns shall be equipped with a belt scraper system. Scrapings shall be returned in an enclosed manner to the main flow of material.  
(9 VAC 5-80-1985 E and 9 VAC 5-50-90)
14. Fugitive dust emissions from the coal feed hopper to the primary boiler feed silo shall be controlled by enclosed belt feed conveyors.  
(9 VAC 5-80-1985 E and 9 VAC 5-50-90)
15. Fugitive dust emissions from the ash and flue gas desulfurization product storage silo shall be controlled by mixing the discharge with water.  
(9 VAC 5-80-1985 E and 9 VAC 5-50-90)
16. Coal stockpiles shall be moistened or treated (wet suppression and surfactant) and the stockpile surfaces shall be kept moist or treated as required to minimize emissions during storage and handling.

(9 VAC 5-80-1985 E and 9 VAC 5-50-90)

17. Fugitive emissions from all facility access roads shall be controlled by paving.  
 (9 VAC 5-80-1985 E)
18. The yearly throughput of coal shall not exceed 253,932 tons.  
 (9 VAC 5-80-1985 E)
19. Each primary coal boiler shall not operate more than 8,400 hours per year.  
 (9 VAC 5-80-1985 E)
20. The two diesel engines shall not operate more than a combined total of 382 hours per year.  
 (9 VAC 5-80-1985 E)
21. The auxiliary boiler and the primary coal boilers shall not be operated concurrently, except during start-up and shutdown, and then for no more than 12 hours over any consecutive 24-hour period and unless both coal boilers are operating at 50 percent capacity or less.  
 (9 VAC 5-80-1985 E and 9 VAC 5-80-1715)
22. Emissions from the operation of each primary coal boiler shall not exceed the limitations specified below:

PM	0.020	lbs/10 <sup>6</sup> Btu	7.6	lbs/hr	32 tons/yr
PM10	0.018	lbs/10 <sup>6</sup> Btu	6.8	lbs/hr	29 tons/yr
Sulfur Dioxide	0.187	lbs/10 <sup>6</sup> Btu♦♦	70.8	lbs/hr	297 tons/yr
Nitrogen Oxide*	0.30	lbs/10 <sup>6</sup> Btu♦♦	113.7	lbs/hr	478 tons/yr
Carbon Monoxide (CO)	0.20	lbs/10 <sup>6</sup> Btu♦♦	76.0	lbs/hr♦♦	318 tons/yr
VOC**♦	0.030	lbs/10 <sup>6</sup> Btu	11.4	lbs/hr	48 tons/yr
Beryllium			0.05	lbs/day	
Sulfuric Acid Mist			149.2	lbs/day	

\* Lower limits may be imposed by the DEQ after review of in-stack testing and optimizing the SNCR system at various loads.

\*\* Lower limits may be imposed by the DEQ, after in-stack testing.

- ◆ The maximum input ratio for wood and coal is to be established after in-stack testing.
- ◆◆ Compliance is determined on 30-day rolling average

(9 VAC 5-80-1985 E, 9 VAC 5-50-280, and 9 VAC 5-80-1705)

23. Emissions from the operation of the auxiliary boiler shall not exceed the limitations specified below. Annual emissions are included in Condition 24.

	Natural Gas	
	<u>lbs/10<sup>6</sup> Btu</u>	<u>lbs/hr</u>
NO <sub>x</sub>	0.073* (30-day roll. avg.)	10.2*
CO	0.082	11.4
VOC	0.041	5.7

	No. 2 Fuel Oil	
	<u>lbs/10<sup>6</sup> Btu</u>	<u>lbs/hr</u>
PM	0.04	5.6
PM <sub>10</sub>	0.03	4.2
SO <sub>2</sub>	0.31 (30-day roll. avg.)	43.2
NO <sub>x</sub>	0.2* (30-day roll. avg.)	27.9*
CO	0.082	11.4
VOC	0.041	5.7

\*Based on high heat release rate.

During any 30-day period when both natural gas and No. 2 Fuel oil are fired, the allowable emission limit for the auxiliary boiler for that period shall be calculated using the equation shown in 40 CFR 60.44b(b), modified as follows:

$$E_n = [(EL_g \times H_g) + (EL_o \times H_o)] / (H_g + H_o)$$

where

$E_n$  = the nitrogen oxides emission limit (expressed as NO<sub>2</sub>), (lb/million BTU)

$EL_g$  = the individual natural gas emission limit as shown in this Condition, (lb/million BTU)

$EL_o$  = the individual No. 2 Fuel oil emission limit as shown in this Condition, (lb/million BTU)

$H_g$  = the natural gas heat input, (million BTU/rolling 30-day period)

$H_o$  = the No. 2 Fuel oil heat input, (million BTU/rolling 30-day period)

(9 VAC 5-80-1985 E, 9 VAC 5-50-280, and 9 VAC 5-80-1705)

24. Combined emissions from the operation of the primary coal boilers (2) and the auxiliary boiler shall not exceed the limitations specified below:

	<u>tons/yr</u>
PM	65.0
PM10	58.8
SO <sub>2</sub>	599.1
NO <sub>x</sub> *	961.0
CO	638.1
VOC**♦	97.0

These limitations are based on the primary coal boilers operating 8,400 hours per year and the auxiliary boiler operating 360 hours per year.

\* Lower limits may be imposed by the DEQ after review of in-stack testing and optimizing the SNCR system at various loads.

\*\* Lower limits may be imposed by the DEQ, after in-stack testing.

♦ The maximum input ratio for wood and coal is to be established after in-stack testing.

(9 VAC 5-80-1985 E, 9 VAC 5-50-280, and 9 VAC 5-80-1705)

25. Emissions from the operation of the diesel engines shall not exceed the limits specified below:

	<u>lbs/hr</u>	<u>tons/yr</u>
Nitrogen Oxides (as NO <sub>2</sub> )	44.44	3.19
Carbon Monoxide	9.57	0.69

(9 VAC 5-80-1985 E, 9 VAC 5-50-280, 9 VAC 5-80-1705, and 9 VAC 5-60-320)

26. Particulate emissions from the operation of the coal, wood dust, ash, and lime storage and handling systems shall not exceed the limitations specified below:

PM	11.20 lbs/hr	8.86 tons/yr
PM10	11.19 lbs/hr	8.85 tons/yr

These emissions are derived from the estimated overall emissions contribution and are included for emission inventory purposes. Compliance shall be determined as stated in Conditions 6, 9, 10, 11, 12, 13, 14, 15, 16, 18, 28, 29, and 55.



(9 VAC 5-80-1985 E, 9 VAC 5-50-280, 9 VAC 5-80-1705, and 9 VAC 5-50-90)

27. Visible emissions from the boiler stacks shall not exceed ten (10) percent opacity, except during one six minute period per hour which shall not exceed twenty-seven (27) percent opacity.  
(9 VAC 5-80-1985 E, 9 VAC 5-50-280, and 9 VAC 5-80-1705)
28. Visible emissions from the diesel engines and from fugitive emission points shall not exceed ten (10) percent opacity.  
(9 VAC 5-80-1985 E, 9 VAC 5-50-280, and 9 VAC 5-80-1705)
29. Visible emissions from all fabric filters (except those on the primary coal boilers) shall not exceed five percent opacity.  
(9 VAC 5-80-1985 E, 9 VAC 5-50-280, and 9 VAC 5-80-1705)
30. The approved fuels for the primary coal boilers are bituminous coal and wood. A change to the fuel may require a permit to modify and operate.  
(9 VAC 5-80-1985 E, 9 VAC 5-50-280, 9 VAC 5-80-1705, and 9 VAC 5-1715)
31. The approved fuel for the diesel engines is diesel fuel (No. 2 Fuel Oil). A change in the diesel engine fuel may require a permit to modify and operate.  
(9 VAC 5-80-1985 E, 9 VAC 5-50-280, 9 VAC 5-80-1705, and 9 VAC 5-1715)
32. The maximum sulfur content of the coal to be burned in the primary coal boilers shall not exceed 1.5 percent by weight, per shipment. Altavista Power Station shall maintain records of all coal shipments purchased, indicating sulfur and ash content per shipment. These records shall be available on site for inspection by Department personnel. They shall be kept on file for the most current five year period.  
(9 VAC 5-80-1985 E, 9 VAC 5-50-280, and 9 VAC 5-80-1705)
33. The approved fuels for the auxiliary boiler are natural gas and No. 2 Fuel Oil. A change in the fuels may require a permit to modify and operate.  
(9 VAC 5-80-1985 E, 9 VAC 5-50-280, and 9 VAC 5-80-1705)
34. The maximum sulfur content of the No. 2 Fuel Oil to be burned in the auxiliary boiler and the diesel engines shall not exceed 0.3 percent by weight per shipment. Altavista Power Station shall maintain records of all fuel oil shipments purchased indicating the sulfur content per shipment. These records shall be available on site for inspection by Department personnel. They shall be kept on file for the most current five-year period.  
(9 VAC 5-80-1985 E, 9 VAC 5-50-280, and 9 VAC 5-80-1705)
35. The (annual rolling) average sulfur content of the No. 2 Fuel Oil to be burned in the auxiliary boiler and the diesel engines shall not exceed 0.2 percent by weight. Altavista Power Station shall maintain records of all fuel oil shipments purchased and

the annual average sulfur content determined monthly. These records shall be available on site for inspection by Department personnel. They shall be kept on file for the most current five-year period.

(9 VAC 5-80-1985 E, 9 VAC 5-50-280, and 9 VAC 5-80-1705)

36. Continuous emission monitors shall be installed to measure and record the concentration of opacity, SO<sub>2</sub> (at inlet and outlet of spray dryer), NO<sub>x</sub> (at each boiler outlet), and CO<sub>2</sub> or O<sub>2</sub> emitted from the primary coal boilers. They shall be maintained, located and calibrated in accordance with approved procedures (reference to 40 CFR 60.13). A 30 day notification prior to the demonstration of continuous monitoring system performance and subsequent notifications are to be submitted to the South Central Regional Office.

(9 VAC 5-80-1985 E and 9 VAC 5-50-40)

37. Continuous emission monitors shall be installed to measure and record the concentration of opacity, SO<sub>2</sub>, NO<sub>x</sub>, and CO<sub>2</sub> or O<sub>2</sub> emitted from the auxiliary boiler. They shall be maintained and calibrated in accordance with approved procedures (reference to 40 CFR 60.13). A 30 day notification prior to the demonstration of continuous monitoring system performance and subsequent notifications are to be submitted to the South Central Regional Office. Fuel testing for sulfur content in accordance with NSPS Subpart Db may be substituted for the SO<sub>2</sub> continuous monitor with approval from the South Central Regional Office.

(9 VAC 5-80-1985 E and 9 VAC 5-50-40)

38. The continuous monitoring data generated by the SO<sub>2</sub> and NO<sub>x</sub> monitors on the boilers shall be used to determine compliance with the emission standards on a 30-day rolling average basis. All of the data capture, quality assurance provisions, and reporting requirements of NSPS Subpart Da and NSPS Subpart Db shall apply. The excess emission report as required by NSPS Db for the auxiliary boiler shall include the emission limit for nitrogen oxides for each 30-day period as calculated in accordance with Condition 23 of this permit.

(9 VAC 5-80-1985 E and 9 VAC 5-50-40)

39. For all continuous monitors required by this permit, the continuous monitoring and quality assurance data may, at the discretion of the Board, be used as evidence of violation of the emission standards. These monitors are subject to such data capture requirements and/or quality assurance requirements as may be deemed appropriate by the Board (refer to 40 CFR 60.13 and Appendix B).

(9 VAC 5-80-1985 E)

40. Continuous Emission Monitoring Systems, meeting the design specifications of 40 CFR Part 60, Appendix B Performance Specification 4A, shall be installed to measure and record the emissions of CO from each primary coal boiler as lbs/MMBtu and lbs/hr. The CEMS shall be installed, calibrated, maintained, audited and operated in accordance with DEQ approved procedures which are equivalent to the

requirements of 40 CFR 60.13 and Appendices B and F. Data shall be reduced to 30 day rolling averages per the procedures for NO<sub>x</sub> contained in 40 CFR 60 Subpart Da. The monitor shall be used to demonstrate compliance with the 30-day rolling average CO emission standard (lb/MMBtu basis) as noted in Condition 22.  
(9 VAC 5-80-1985 E and 9 VAC 5-50-40)

41. A flowmeter shall be used to measure the stack gas airflow from the common stack with the flow apportioned by steam flow rate for each coal boiler utilizing the procedures for Part 75 apportionment. The stack gas flowmeter shall be installed, operated, and maintained in accordance with the provisions of 40 CFR 75 Appendices A and B, with the exception that the relative accuracy test audit (RATA) be performed at least once every four (4) consecutive calendar quarters. The permittee shall submit stack gas flowmeter reports as required by 40 CFR 75 Appendices A and B. The CO emissions (lb/hr basis) shall be calculated from data obtained from the CO continuous emissions monitoring system and stack gas flowmeter in accordance to the provisions of 40 CFR 75 Appendix F. These data shall be used to demonstrate compliance with the 30-day rolling average CO emission standard (lb/hr basis) as noted in Condition 22.  
(9 VAC 5-80-1985 E and 9 VAC 5-50-40)

42. Performance evaluations of the CO continuous monitoring systems shall be conducted in accordance with 40 CFR Part 60, Appendix B, and shall take place within 180 days after the initial effective date of the CO 30-day rolling average limit. Two copies of the performance evaluations report shall be submitted to the South Central Regional Office within 45 days of the evaluation. The continuous monitoring systems shall be installed and operational prior to conducting initial performance evaluation. Verification of operational status shall, as a minimum, include completion of the manufacturer's written requirements or recommendations for installation, operation and calibration of the device. A 30 day notification, prior to the demonstration of continuous monitoring system's performance, and subsequent notifications shall be submitted to the South Central Regional Office.  
(9 VAC 5-80-1985 E and 9 VAC 5-50-40)

43. A CEMS quality control program which is equivalent to the requirements of 40 CFR 60.13 and Appendix B and F shall be implemented for the CO continuous monitoring systems.  
(9 VAC 5-80-1985 E and 9 VAC 5-50-40)

44. The permittee shall furnish written reports to the South Central Regional Office of excess emissions from the primary coal boilers monitored by the CO continuous monitoring system on a quarterly basis, postmarked no later than the 30th day following the end of the calendar quarter. These reports shall include, but are not limited to the following information:
  - a. The magnitude of excess emissions, any conversion factors used in the calculation of excess emissions, and the date and time of commencement and completion of

- each period of excess emissions;
- b. Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the process, the nature and cause of the malfunction (if known), the corrective action taken or preventative measures adopted;
- c. The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments; and
- d. When no excess emissions have occurred or the continuous monitoring systems have not been inoperative, repaired or adjusted, such information shall be stated in that report.

(9 VAC 5-80-1985 E and 9 VAC 5-50-50)

- 45. Any host steam agreement, excluding financial terms, shall be made available on site for review by the DEQ upon request.  
(9 VAC 5-80-1985 E)
- 46. Altavista Power Station shall maintain a spare parts inventory for equipment associated with all air pollution control and monitoring equipment to minimize down time during periods of malfunction. In the event that any pollution control equipment on either of the primary coal boilers malfunctions or has unscheduled maintenance in such a manner as to cause a violation of any emission standard set forth in this permit, Altavista Power Station shall immediately shut down the affected boiler in a controlled fashion or isolate the problem for an immediate correction. Altavista Power Station shall contact the South Central Regional Office within two (2) hours of said maintenance or malfunction.  
(9 VAC 5-80-1985 E)
- 47. The auxiliary boiler stack shall be 200 feet or greater.  
(9 VAC 5-80-1985 E and 9 VAC 5-50-20)
- 48. The approved startup fuels for the primary coal boilers #1 and #2 are natural gas and No. 2 Fuel Oil meeting the sulfur content specified in Conditions 34 and 35. A change in the fuel may require a permit to modify and operate.  
(9 VAC 5-80-1985 E, 9 VAC 5-50-280, and 9 VAC 5-80-1705)
- 49. The yearly combustion of No. 2 fuel oil in the primary coal boilers #1 and #2 shall not exceed a total of 60,000 gallons.  
(9 VAC 5-80-1985 E)
- 50. The permittee, per 40 CFR 60.116b (Subpart Kb), shall keep readily accessible records showing the dimensions and an analysis showing the capacity of the distillate oil storage tank and shall report to the South Central Regional Office if the maximum true vapor pressure of the stored product exceeds 0.50 psi.

(9 VAC 5-80-1985 E and 9 VAC 5-50-410)

51. The permitted facility shall be designed and constructed to allow emissions testing using appropriate methods upon reasonable notice at any time.  
(9 VAC 5-80-1985 E, 9 VAC 5-50-30, and 9 VAC 5-60-30)
52. All continuous monitoring systems and monitoring devices, as may be applicable for this source type, shall be installed and operational prior to conducting performance tests under 9 VAC 5-50-30 and 9 VAC 5-60-30. Performance evaluations of the continuous monitoring system shall take place during the performance tests under 9 VAC 5-50-30 and 9 VAC 5-60-30 or within 30 days thereafter. The South Central Regional Office shall be furnished with two copies of the report of the performance evaluations within 60 days of the evaluation.  
(9 VAC 5-80-1985 E, 9 VAC 5-50-40, and 9 VAC 5-60-40)
53. The permittee shall maintain records of emission data and operating parameters, to include process throughputs, as necessary to demonstrate compliance with this permit. These records shall be maintained by the source for the most current five year period.  
(9 VAC 5-80-1985 E and 9 VAC 5-50-50)
54. The permittee shall maintain records of the number of hours of operation of the diesel engines to demonstrate compliance with this permit. The content of and format of such records shall be arranged with the South Central Regional Office. These records shall be available for inspection by the DEQ and shall be current for the most recent five (5) years.  
(9 VAC 5-80-1985 E and 9 VAC 5-50-50)
55. The permittee shall develop, maintain, and have available to all operators good written operating procedures for all air pollution control equipment. A maintenance schedule for all such equipment shall be established and made available to the South Central Regional Office for review. Records of service and maintenance shall be maintained on file by the source for the most current five year period.  
(9 VAC 5-80-1985 E and 9 VAC 5-50-20 E)
56. This permit may be modified or revoked in whole or in part for cause, including, but not limited to, the following:
  - a. Violation of any terms of conditions of this permit;
  - b. Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts;
  - c. A change in any condition that requires either a temporary or permanent reduction or elimination of a permitted discharge; or
  - d. Information that the permitted discharge of any pollutant poses a threat to human health, welfare, or the environment.

(9 VAC 5-80-1985 F)

57. In the event of any change in control of ownership of the permitted source, the permittee shall notify the succeeding owner of the existence of this permit by letter and send a copy of that letter to the South Central Regional Office.  
(9 VAC 5-80-1985 E)
58. The conditions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of that provision to other circumstances, and the remainder of this permit, shall not be affected thereby.  
(9 VAC 5-80-1985 E)
59. This permit approval is only applicable to the permit requirements of the State Air Pollution Control Board and does not alter permit requirements by any other local, state or federal government agency. The permittee is cautioned that approval of this permit should not be constructed to mean its operation is automatically in compliance with all aspect of the Regulations for the Control and Abatement of Air Pollution. Initial compliance shall be verified by stack test if required, visible emission evaluation if appropriate, and by other means (process rate, operating practice, etc.). Continuing compliance shall be verified by Department personnel by constant surveillance in accordance with the State Air Pollution Control Board regulations. Compliance with all air pollution regulations must be a continuing, full time effort.  
(9 VAC 5-80-1985 E)
60. Annual requirements to fulfill legal obligations to maintain current stationary source emissions data will necessitate your prompt response to requests for information to include, as appropriate: fuel consumption by type, heat value, sulfur and ash content, process and production data; refuse disposal by incineration including auxiliary fuels burned; storage, handling and use of liquid organic compounds; and, changes in stack data, control equipment, and operating schedules. Such requests for information from the Department will be either in writing or by personal contact. The availability of information submitted to the Department or the Board will be governed by applicable provisions of the Freedom of Information Act, §§ 2.1-340 through 2.1-348 of the Code of Virginia, § 10.1-1314 (addressing information provided to the Board), and § 9 VAC 5-20-150 of the State Air Pollution Control Board Regulations. Information provided to federal officials is subject to appropriate federal law and regulations governing confidentiality of such information.  
(9 VAC 5-80-1985 E and 9 VAC 5-20-160)
61. A copy of this permit shall be maintained on the premises of the facility to which it applies.  
(9 VAC 5-80-1985 E)

62. The permittee shall allow authorized state and federal representatives, upon the presentation of credentials:
- a. to enter upon the permittee's premises on which the facility is located or in which any records are required to be kept under the terms and conditions of this permit;
  - b. to have access to and copy at reasonable times any records required to be kept under the terms and conditions of this permit or the State Air Pollution Control Board Regulations;
  - c. to inspect at reasonable times any facility, equipment, or process subject to the terms and conditions of this permit or the State Air Pollution Control Board Regulations; and
  - d. to sample or test at reasonable times.

For purposes of this section, the time for inspection shall be deemed reasonable during regular business hours or whenever the facility is in operation. Nothing contained herein shall make an inspection time unreasonable during an emergency. (9 VAC 5-80-1985 E and 9 VAC 5-170-130)

**PART II – Minor New Source Review Permit Specific Conditions**

Conditions 63 through 123 are established pursuant to 9 VAC 5-80-1100 *et seq.* The conditions are federally enforceable under the federal Clean Air Act.

63. Particulate emissions from the primary coal boilers shall be controlled by an in-line multiple cyclone, a lime water injection spray dryer, and a fabric filter rated at 99.9 percent control efficiency. The control systems shall be provided with adequate access for inspection. The fabric filter may be bypassed during non-coal fuel boiler start-ups to alleviate potential moisture damage to the fabric filter at low start-up temperatures. Each fabric filter shall be equipped with a device to continuously measure pressure drop.  
(9 VAC 5-80-1180 and 9 VAC 5-50-260)
64. Particulate emissions from the auxiliary boiler shall be controlled by combustion efficiency.  
(9 VAC 5-80-1180 and 9 VAC 5-50-260)
65. Particulate emissions from the wood storage silo, the emergency truck loading station, coal feed silos, lime storage silo, recycle bin, and discharge storage silo shall be controlled by fabric filters. The fabric filters shall be provided with adequate access for inspection.  
(9 VAC 5-80-1180 and 9 VAC 5-50-260)
66. Sulfur dioxide emissions from the primary coal boilers shall be controlled by a water-lime injection spray dryer at 92 percent control efficiency. The control system shall be provided with adequate access for inspection.  
(9 VAC 5-80-1180 and 9 VAC 5-50-260)
67. Nitrogen oxide emissions from the primary coal boilers shall be controlled by a continuous coal feed system, staged combustion low excess air, and selective non-catalytic reduction.  
(9 VAC 5-80-1180 and 9 VAC 5-50-260)
68. Fugitive dust emissions from coal unloading, feeding, and conveying, shall be controlled by wet suppression with surfactant as necessary.  
(9 VAC 5-80-1180 and 9 VAC 5-50-90)
69. The wood pulverizer systems shall include fabric filters for the collection of the pulverized wood fuel. The fabric filters shall be provided with adequate access for inspection.  
(9 VAC 5-80-1180)
70. Lime slaker emissions shall be controlled by fabric filter. The control system shall be provided with adequate access for inspection and shall have a device for continuous measurement of pressure drop.



(9 VAC 5-80-1180 and 9 VAC 5-50-260)

71. The coal crusher and the wood pulverizer shall be enclosed to prevent fugitive dust emissions. A fabric filter or other dust control methods, as approved by the South Central Regional Office, may be required after visible inspection by Agency personnel.  
(9 VAC 5-80-1180 and 9 VAC 5-50-90)
72. All conveyor belt returns shall be equipped with a belt scraper system. Scrapings shall be returned in an enclosed manner to the main flow of material.  
(9 VAC 5-80-1180 and 9 VAC 5-50-90)
73. Fugitive dust emissions from the coal feed hopper to the primary boiler feed silo shall be controlled by enclosed belt feed conveyors.  
(9 VAC 5-80-1180 and 9 VAC 5-50-90)
74. Fugitive dust emissions from the ash and flue gas desulfurization product storage silo shall be controlled by mixing the discharge with water.  
(9 VAC 5-80-1180 and 9 VAC 5-50-90)
75. Coal stockpiles shall be moistened or treated (wet suppression and surfactant) and the stockpile surfaces shall be kept moist or treated as required to minimize emissions during storage and handling.  
(9 VAC 5-80-1180 and 9 VAC 5-50-90)
76. Fugitive emissions from all facility access roads shall be controlled by paving.  
(9 VAC 5-80-1180)
77. Fugitive particulate emissions from the unloading, transfer and handling of wood chips shall be minimized by utilizing methods approved by DEQ.  
(9 VAC 5-80-1180 and 9 VAC 5-50-90)
78. The yearly throughput of coal shall not exceed 253,932 tons.  
(9 VAC 5-80-1180)
79. Each primary coal boiler shall not operate more than 8,400 hours per year.  
(9 VAC 5-80-1180)
80. The two diesel engines shall not operate more than a combined total of 382 hours per year.  
(9 VAC 5-80-1180)
81. The auxiliary boiler and the primary coal boilers shall not be operated concurrently, except during start-up and shutdown, and then for no more than 12 hours over any

consecutive 24-hour period and unless both coal boilers are operating at 50 percent capacity or less.  
 (9 VAC 5-80-1180)

82. Emissions from the operation of each primary coal boiler shall not exceed the limitations specified below:

PM	0.020 lbs/10 <sup>6</sup> Btu	7.6 lbs/hr	32 tons/yr
PM10	0.018 lbs/10 <sup>6</sup> Btu	6.8 lbs/hr	29 tons/yr
Sulfur Dioxide	0.187 lbs/10 <sup>6</sup> Btu♦♦	70.8 lbs/hr	297 tons/yr
Nitrogen Oxide*	0.30 lbs/10 <sup>6</sup> Btu♦♦	113.7 lbs/hr	478 tons/yr
Carbon Monoxide	0.20 lbs/10 <sup>6</sup> Btu♦♦	76.0 lbs/hr♦♦	318 tons/yr
VOC**♦	0.030 lbs/10 <sup>6</sup> Btu	11.4 lbs/hr	48 tons/yr
Beryllium	0.05	lbs/day	
Sulfuric Acid Mist	149.2	lbs/day	

\* Lower limits may be imposed by the DEQ after review of in-stack testing and optimizing the SNCR system at various loads.

\*\* Lower limits may be imposed by the DEQ, after in-stack testing.

♦ The maximum input ratio for wood and coal is to be established after in-stack testing.

♦♦ Compliance is determined on 30-day rolling average

(9 VAC 5-80-1180 and 9 VAC 5-50-260)

83. Emissions from the operation of the auxiliary boiler shall not exceed the limitations specified below. Annual emissions are included in Condition 84.

Natural Gas		
	<u>lbs/10<sup>6</sup> Btu</u>	<u>lbs/hr</u>
NOx	0.073* (30-day roll. avg.)	10.2*
CO	0.082	11.4
VOC	0.041	5.7
No. 2 Fuel Oil		
	<u>lbs/10<sup>6</sup> Btu</u>	<u>lbs/hr</u>
PM	0.04	5.6
PM10	0.03	4.2

SO <sub>2</sub>	0.31 (30-day roll. avg.)	43.2
NO <sub>x</sub>	0.2* (30-day roll. avg.)	27.9*
CO	0.082	11.4
VOC	0.041	5.7

\*Based on high heat release rate.

During any 30-day period when both natural gas and No. 2 Fuel oil are fired, the allowable emission limit for the auxiliary boiler for that period shall be calculated using the equation shown in 40 CFR 60.44b (b), modified as follows:

$$E_n = [(EL_g \times H_g) + (EL_o \times H_o)] / (H_g + H_o)$$

where

$E_n$  = the nitrogen oxides emission limit (expressed as NO<sub>2</sub>), (lb/million BTU)

$EL_g$  = the individual natural gas emission limit as shown in this Condition, (lb/million BTU)

$EL_o$  = the individual No. 2 Fuel oil emission limit as shown in this Condition, (lb/million BTU)

$H_g$  = the natural gas heat input, (million BTU/rolling 30-day period)

$H_o$  = the No. 2 Fuel oil heat input, (million BTU/rolling 30-day period)

(9 VAC 5-80-1180 and 9 VAC 5-50-260)

84. Combined emissions from the operation of the primary coal boilers (2) and the auxiliary boiler shall not exceed the limitations specified below:

	<u>tons/yr</u>
PM	65.0
PM10	58.8
SO <sub>2</sub>	599.1
NO <sub>x</sub> *	961.0
CO	638.1
VOC**◆	97.0

These limitations are based on the primary coal boilers operating 8,400 hours per year and the auxiliary boiler operating 360 hours per year.

\* Lower limits may be imposed by the DEQ after review of in-stack testing and optimizing the SNCR system at various loads.

\*\* Lower limits may be imposed by the DEQ, after in-stack testing.

- ♦ The maximum input ratio for wood and coal is to be established after in-stack testing.

(9 VAC 5-80-1180 and 9 VAC 5-50-260)

85. Emissions from the operation of the diesel engines shall not exceed the limits specified below:

	<u>lbs/hr</u>	<u>tons/yr</u>
Nitrogen Oxides (as NO <sub>2</sub> )	44.44	3.19
Carbon Monoxide	9.57	0.69

(9 VAC 5-80-1180, 9 VAC 5-50-260, and 9 VAC 5-60-320)

86. Particulate emissions from the operation of the coal, wood dust, wood chips, ash, and lime storage and handling systems shall not exceed the limitations specified below:

PM	11.20 lbs/hr	8.86 tons/yr
PM10	11.19 lbs/hr	8.85 tons/yr

These emissions are derived from the estimated overall emissions contribution and are included for emission inventory purposes. Compliance shall be determined as stated in Conditions 65, 68, 69, 70, 71, 72, 73, 74, 75, 77, 78, 88, 89, and 116.

(9 VAC 5-80-1180, 9 VAC 5-50-260, and 9 VAC 5-50-90)

87. Visible emissions from the boiler stacks shall not exceed ten (10) percent opacity, except during one six minute period per hour which shall not exceed twenty-seven (27) percent opacity.

(9 VAC 5-80-1180 and 9 VAC 5-50-260)

88. Visible emissions from the diesel engines and from fugitive emission points shall not exceed ten (10) percent opacity.

(9 VAC 5-80-1180 and 9 VAC 5-50-260)

89. Visible emissions from all fabric filters (except those on the primary coal boilers) shall not exceed five percent opacity.

(9 VAC 5-80-1180 and 9 VAC 5-50-260)

90. The approved fuels for the primary coal boilers are bituminous coal and wood. A change to the fuel may require a permit to modify and operate.

(9 VAC 5-80-1180 and 9 VAC 5-50-260)

91. The approved fuel for the diesel engines is diesel fuel (No. 2 Fuel Oil). A change in the diesel engine fuel may require a permit to modify and operate.  
(9 VAC 5-80-1180 and 9 VAC 5-50-260)
92. The maximum sulfur content of the coal to be burned in the primary coal boilers shall not exceed 1.5 percent by weight, per shipment. Altavista Power Station shall maintain records of all coal shipments purchased, indicating sulfur and ash content per shipment. These records shall be available on site for inspection by Department personnel. They shall be kept on file for the most current five year period.  
(9 VAC 5-80-1180 and 9 VAC 5-50-260)
93. The approved fuels for the auxiliary boiler are natural gas and No. 2 Fuel Oil. A change in the fuels may require a permit to modify and operate.  
(9 VAC 5-80-1180 and 9 VAC 5-50-260)
94. The maximum sulfur content of the No. 2 Fuel Oil to be burned in the auxiliary boiler and the diesel engines shall not exceed 0.3 percent by weight per shipment. Altavista Power Station shall maintain records of all fuel oil shipments purchased indicating the sulfur content per shipment. These records shall be available on site for inspection by Department personnel. They shall be kept on file for the most current five-year period.  
(9 VAC 5-80-1180 and 9 VAC 5-50-260)
95. The (annual rolling) average sulfur content of the No. 2 Fuel Oil to be burned in the auxiliary boiler and the diesel engines shall not exceed 0.2 percent by weight. Altavista Power Station shall maintain records of all fuel oil shipments purchased and the annual average sulfur content determined monthly. These records shall be available on site for inspection by Department personnel. They shall be kept on file for the most current five-year period.  
(9 VAC 5-80-1180 and 9 VAC 5-50-260)
96. Continuous emission monitors shall be installed to measure and record the concentration of opacity, SO<sub>2</sub> (at inlet and outlet of spray dryer), NO<sub>x</sub> (at each boiler outlet), and CO<sub>2</sub> or O<sub>2</sub> emitted from the primary coal boilers. They shall be maintained, located and calibrated in accordance with approved procedures (reference to 40 CFR 60.13). A 30 day notification prior to the demonstration of continuous monitoring system performance and subsequent notifications are to be submitted to the South Central Regional Office.  
(9 VAC 5-80-1180 and 9 VAC 5-50-40)
97. Continuous emission monitors shall be installed to measure and record the concentration of opacity, SO<sub>2</sub>, NO<sub>x</sub>, and CO<sub>2</sub> or O<sub>2</sub> emitted from the auxiliary boiler. They shall be maintained and calibrated in accordance with approved procedures (reference to 40 CFR 60.13). A 30 day notification prior to the demonstration of continuous monitoring system performance and subsequent notifications are to be

submitted to the South Central Regional Office. Fuel testing for sulfur content in accordance with NSPS Subpart Db may be substituted for the SO<sub>2</sub> continuous monitor with approval from the South Central Regional Office.  
(9 VAC 5-80-1180 and 9 VAC 5-50-40)

98. The continuous monitoring data generated by the SO<sub>2</sub> and NO<sub>x</sub> monitors on the boilers shall be used to determine compliance with the emission standards on a 30-day rolling average basis. All of the data capture, quality assurance provisions, and reporting requirements of NSPS Subpart Da and NSPS Subpart Db shall apply. The excess emission report as required by NSPS Db for the auxiliary boiler shall include the emission limit for nitrogen oxides for each 30-day period as calculated in accordance with Condition 83 of this permit.  
(9 VAC 5-80-1180 and 9 VAC 5-50-40)
99. For all continuous monitors required by this permit, the continuous monitoring and quality assurance data may, at the discretion of the Board, be used as evidence of violation of the emission standards. These monitors are subject to such data capture requirements and/or quality assurance requirements as may be deemed appropriate by the Board (refer to 40 CFR 60.13 and Appendix B).  
(9 VAC 5-80-1180)
100. Continuous Emission Monitoring Systems (CEMS), meeting the design specifications of 40 CFR Part 60, Appendix B Performance Specification 4A, shall be installed to measure and record the emissions of CO from each primary coal boiler as lbs/MMBtu and lbs/hr. The CEMS shall be installed, calibrated, maintained, audited and operated in accordance with DEQ approved procedures which are equivalent to the requirements of 40 CFR 60.13 and Appendices B and F. Data shall be reduced to 30 day rolling averages per the procedures for NO<sub>x</sub> contained in 40 CFR 60 Subpart Da. The monitor shall be used to demonstrate compliance with the 30-day rolling average CO emission standard (lb/MMBtu basis) as noted in Condition 82.  
(9 VAC 5-80-1180 and 9 VAC 5-50-40)
101. A flowmeter shall be used to measure the stack gas airflow from the common stack flowmeter with the flow measured at the common stack and apportioned by steam flow rate for each coal boiler utilizing the procedures for Part 75 apportionment. The stack gas flowmeter shall be installed, operated, and maintained in accordance with the provisions of 40 CFR 75 Appendices A and B, with the exception that the relative accuracy test audit (RATA) be performed at least once every four (4) consecutive calendar quarters. The permittee shall submit stack gas flowmeter reports as required by 40 CFR 75 Appendices A and B. The CO emissions (lb/hr basis) shall be calculated from data obtained from the CO continuous emissions monitoring system and stack gas flowmeter in accordance to the provisions of 40 CFR 75 Appendix F. These data shall be used to demonstrate compliance with the 30-day rolling average CO emission standard (lb/hr basis) as noted in Condition 82.  
(9 VAC 5-80-1180 and 9 VAC 5-50-40)

102. Performance evaluations of the continuous monitoring systems shall be conducted in accordance with 40 CFR Part 60, Appendix B, and shall take place within 180 days after the initial effective date of the CO 30-day rolling average limit. Two copies of the performance evaluations report shall be submitted to the South Central Regional Office within 45 days of the evaluation. The continuous monitoring systems shall be installed and operational prior to conducting initial performance tests. Verification of operational status shall, as a minimum, include completion of the manufacturer's written requirements or recommendations for installation, operation and calibration of the device. A 30 day notification, prior to the demonstration of continuous monitoring system's performance, and subsequent notifications shall be submitted to the South Central Regional Office.  
(9 VAC 5-80-1180 and 9 VAC 5-50-40)

103. A CEMS quality control program which is equivalent to the requirements of 40 CFR 60.13 and Appendix B and F shall be implemented for the CO continuous monitoring systems.  
(9 VAC 5-80-1180 and 9 VAC 5-50-40)

104. The permittee shall furnish written reports to the South Central Regional Office of excess emissions from the primary coal boilers monitored by the CO continuous monitoring system on a quarterly basis, postmarked no later than the 30th day following the end of the calendar quarter. These reports shall include, but are not limited to the following information:

- a. The magnitude of excess emissions, any conversion factors used in the calculation of excess emissions, and the date and time of commencement and completion of each period of excess emissions;
- b. Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the process, the nature and cause of the malfunction (if known), the corrective action taken or preventative measures adopted;
- c. The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments; and
- d. When no excess emissions have occurred or the continuous monitoring systems have not been inoperative, repaired or adjusted, such information shall be stated in that report.

These reports shall be available for inspection by the DEQ and shall be current for the most recent five years.  
(9 VAC 5-80-1180 and 9 VAC 5-50-50)

105. Any host steam agreement, excluding financial terms, shall be made available on site for review by the DEQ upon request.  
(9 VAC 5-80-1180)

106. Altavista Power Station shall maintain a spare parts inventory for equipment associated with all air pollution control and monitoring equipment to minimize down time during periods of malfunction. In the event that any pollution control equipment on either of the primary coal boilers malfunctions or has unscheduled maintenance in such a manner as to cause a violation of any emission standard set forth in this permit, Altavista Power Station shall immediately shut down the affected boiler in a controlled fashion or isolate the problem for an immediate correction. Altavista Power Station shall contact the South Central Regional Office within two (2) hours of said maintenance or malfunction.  
(9 VAC 5-80-1180)
107. The auxiliary boiler stack shall be 200 feet or greater.  
(9 VAC 5-80-1180 and 9 VAC 5-50-20)
108. The approved startup fuels for the primary coal boilers #1 and #2 are natural gas and No. 2 Fuel Oil meeting the sulfur content specified in Conditions 94 and 95. A change in the fuel may require a permit to modify and operate.  
(9 VAC 5-80-1180 and 9 VAC 5-50-260)
109. The yearly combustion of No. 2 fuel oil in the primary coal boilers #1 and #2 shall not exceed a total of 60,000 gallons.  
(9 VAC 5-80-1180)
110. The permittee, per 40 CFR 60.116b (Subpart Kb), shall keep readily accessible records showing the dimensions and an analysis showing the capacity of the distillate oil storage tank and shall report to the South Central Regional Office if the maximum true vapor pressure of the stored product exceeds 0.50 psi.  
(9 VAC 5-80-1180 and 9 VAC 5-50-410)
111. No project shall result in a major modification as defined in 9 VAC 5-80-1615 without receiving a permit pursuant to 9 VAC 5-80 Article 8. For projects which rely on excluded emissions (subsection c of the definition of “projected actual emissions” in 9 VAC 5-80-1615) to be exempt from review under 9 VAC 5-80 Article 8, the following conditions shall apply:
- a. The permittee shall maintain records sufficient to demonstrate the project did not result in a major modification as defined in 9 VAC 5-80-1615. Any increase in emissions without sufficient documentation shall be attributed to the project.
  - b. If annual emissions after the project (12 month rolling total) exceed the “baseline actual emissions” (as defined in 9 VAC 5-80-1615) for the project by a “significant” amount (as defined in 9 VAC 5-80-1615), the permittee shall notify the South Central Regional Office within fifteen (15) days after the event.
- For each applicable project, Conditions 111.a and 111.b are effective for the



projection period as prescribed in the definition of “projected actual emissions” located in 9 VAC 5-80-1615. Nothing in this condition shall restrict when the Board may find the permittee in violation of 9 VAC 5-80-1625 A.  
(9 VAC 5-80-1180 A)

112. The permitted facility shall be designed and constructed to allow emissions testing using appropriate methods upon reasonable notice at any time.  
(9 VAC 5-80-1180, 9 VAC 5-50-30, and 9 VAC 5-60-30)
113. All continuous monitoring systems and monitoring devices, as may be applicable for this source type, shall be installed and operational prior to conducting performance tests under 9 VAC 5-50-30 and 9 VAC 5-60-30. Performance evaluations of the continuous monitoring system shall take place during the performance tests under 9 VAC 5-50-30 and 9 VAC 5-60-30 or within 30 days thereafter. The South Central Regional Office shall be furnished with two copies of the report of the performance evaluations within 60 days of the evaluation.  
(9 VAC 5-80-1180, 9 VAC 5-50-40, and 9 VAC 5-60-40)
114. The permittee shall maintain records of emission data and operating parameters, to include process throughputs, as necessary to demonstrate compliance with this permit. These records shall be maintained by the source for the most current five year period.  
(9 VAC 5-80-1180 and 9 VAC 5-50-50)
115. The permittee shall maintain records of the number of hours of operation of the diesel engines to demonstrate compliance with this permit. The content of and format of such records shall be arranged with the South Central Regional Office. These records shall be available for inspection by the DEQ and shall be current for the most recent five (5) years.  
(9 VAC 5-80-1180 and 9 VAC 5-50-50)
116. The permittee shall develop, maintain, and have available to all operators good written operating procedures for all air pollution control equipment. A maintenance schedule for all such equipment shall be established and made available to the South Central Regional Office for review. Records of service and maintenance shall be maintained on file by the source for the most current five year period.  
(9 VAC 5-80-1180 and 9 VAC 5-50-20 E)
117. This permit may be modified or revoked in whole or in part for cause, including, but not limited to, the following:
  - a. Violation of any terms of conditions of this permit;
  - b. Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts;
  - c. A change in any condition that requires either a temporary or permanent reduction or elimination of a permitted discharge; or

- d. Information that the permitted discharge of any pollutant poses a threat to human health, welfare, or the environment.

(9 VAC 5-80-1180 and 9 VAC 5-80-1210 F)

- 118. In the event of any change in control of ownership of the permitted source, the permittee shall notify the succeeding owner of the existence of this permit by letter and send a copy of that letter to the South Central Regional Office.  
(9 VAC 5-80-1180)
- 119. The conditions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of that provision to other circumstances, and the remainder of this permit, shall not be affected thereby.  
(9 VAC 5-80-1180)
- 120. This permit approval is only applicable to the permit requirements of the State Air Pollution Control Board and does not alter permit requirements by any other local, state or federal government agency. The permittee is cautioned that approval of this permit should not be constructed to mean its operation is automatically in compliance with all aspect of the Regulations for the Control and Abatement of Air Pollution. Initial compliance shall be verified by stack test if required, visible emission evaluation if appropriate, and by other means (process rate, operating practice, etc.). Continuing compliance shall be verified by Department personnel by constant surveillance in accordance with the State Air Pollution Control Board regulations. Compliance with all air pollution regulations must be a continuing, full time effort.  
(9 VAC 5-80-1180)
- 121. Annual requirements to fulfill legal obligations to maintain current stationary source emissions data will necessitate your prompt response to requests for information to include, as appropriate: fuel consumption by type, heat value, sulfur and ash content, process and production data; refuse disposal by incineration including auxiliary fuels burned; storage, handling and use of liquid organic compounds; and, changes in stack data, control equipment, and operating schedules. Such requests for information from the Department will be either in writing or by personal contact. The availability of information submitted to the Department or the Board will be governed by applicable provisions of the Freedom of Information Act, §§ 2.1-340 through 2.1-348 of the Code of Virginia, § 10.1-1314 (addressing information provided to the Board), and § 9 VAC 5-20-150 of the State Air Pollution Control Board Regulations. Information provided to federal officials is subject to appropriate federal law and regulations governing confidentiality of such information.  
(9 VAC 5-80-1180 and 9 VAC 5-20-160)

122. A copy of this permit shall be maintained on the premises of the facility to which it applies.  
(9 VAC 5-80-1180)
123. The permittee shall allow authorized state and federal representatives, upon the presentation of credentials:
- to enter upon the permittee's premises on which the facility is located or in which any records are required to be kept under the terms and conditions of this permit;
  - to have access to and copy at reasonable times any records required to be kept under the terms and conditions of this permit or the State Air Pollution Control Board Regulations;
  - to inspect at reasonable times any facility, equipment, or process subject to the terms and conditions of this permit or the State Air Pollution Control Board Regulations; and
  - to sample or test at reasonable times.

For purposes of this section, the time for inspection shall be deemed reasonable during regular business hours or whenever the facility is in operation. Nothing contained herein shall make an inspection time unreasonable during an emergency.  
(9 VAC 5-80-1180 and 9 VAC 5-170-130)

### **PART III - DOCUMENT LIST**

1. Ultrasystems Development Corporation permit application, dated May 4, 1988 and signed by Harvey J. Padewar.
2. 88-05-05 Ultrasystems Development Corporation letter to VDAPC confirming May 12, 1988 meeting agenda.
3. 88-05-12 VDAPC memo on May 12, 1988 meeting.
4. 88-05-27 VDAPC-AEDTS letter of Determination to Ultrasystems Development Corporation (Padewar), re: Altavista site.
5. 88-10-28 Ultrasystems Development Corporation - ESD letters to VDPAC Regions II, III, V, and VI, conveying BACT Analysis to Buena Vista, Covington, Altavista, Hopewell and Franklin sites.
6. 88-11-16 Ultrasystems Development Corporation - ESD letters to VDAPC Regions II, III, V, and VI, Description of Materials Handling System, with SAPCB Form 7 (Permit Application) Revisions/Plot Plan, for respective sites.

7. 88-12-27 VDAPC-AEDTS letter to Ultrasystems Development Corporation - ESD (Hurt), requesting explanations regarding the Ultrasystems Development Corporation October 1988 BACT Analyses.
8. 89-01-06 VDAPC-AEDTS letter to Ultrasystems Development Corporation -ESD (Hurt), reiterating problems connected with applicant's air quality analysis protocols and repeating requests for information.
9. 89-02-07 Ultrasystems Development Corporation Interoffice Correspondence, ESD (Hurt) to B. Owens, ULTRA-COGEN - Standby Boilers and Supplemental Fuel Firing (copy sent to VDAPC-DTE).
10. 89-02-23 Ultrasystems Development Corporation letter to VDAPC-AEDTS, Revised Best Available Control Technology Analysis.
11. 89-03-03 Department of Mines, Minerals and Energy (G. Wilkes) informal note to VDAPC-DTE (Jack Schubert), transmitting reports of analyses, Virginia and other coals.
12. 89-03-08 Ultrasystems Development Corporation facsimile transmission to VDAPC-DTE, conveying information on planned method for burning waste wood in boilers at Altavista plant, estimated emission factor and vendor description of wood burner from Cogen.
13. 89-03-08 Ultrasystems Development Corporation - ESD letters to VDAPC Regions II, III, V, VI, stating planned use of auxiliary (standby boiler) at each site and transmitting revisions to SAPCB Form 7 (Permit Application).
14. 89-03-14 Lane Company letter to Ultrasystems.
15. 89-03-21 E. J. Goller (VMI Chemistry Department) letter to Ultrasystems Development Corporation (R. Kennel), pointing out available NOx pollution control technology options contrary to the Ultrasystems Development Corporation BACT Analysis conclusions.
16. 89-03-27 VDAPC-DCS letter to the Ultrasystems Development Corporation - ESD (Hurt), conveying values and procedures for use in applicant's air quality analyses.
17. 89-03-28 VDAPC-DCS letter to the Ultrasystems Development Corporation (R. Kennel) letter to VDAPC-AEDTS, Additional Information Request, withdrawing Covington site application and advising of (1) start of Buena Vista meteorological monitoring, (2) plans to use continuous coal feed subsystem in all plants, (3) actions to purchase lower sulfur coal at Buena Vista, (4) commitment by one host not to operate boilers simultaneously with Ultrasystems Development Corporation, and (6) decision to limit annual operations to 8,400 hours at all plants.

18. 89-03-28 Ultrasystems Development Corporation - ESD letter to VDAPC - AEDTS, Additional Information Request, with attachment entitled "Ultrasystems Response to VDAPC comments and questions given at the March 10, 1989 Meeting".
19. 89-04-03 Ultrasystems Development Corporation (R. P. Kennel) letter to Professor E. J. Goller, VMI, in response to Goller's March 21, 1989 letter.
20. 89-04-19 Ultrasystems Development Corporation letter to VDAPC-AEDTS, requesting background information relating to tentative VDAPC BACT Determinations of April 18, 1989.
21. 89-04-20 VDAPC-AEDTS letter to Ultrasystems Development Corporation (R. Kennel), providing information requested on April 19, 1989 in text and by enclosures.
22. 89-04-27 Ultrasystems Development Corporation letter to VDAPC-AEDTS, requesting approval of previously-submitted modelling protocols and conveying information on control equipment vendor guarantees.
23. 89-04-28 VDAPC-DTE Facsimile Transmission to Ultrasystems Development Corporation - ESD (Hurt), providing copies of Cogentrix Portsmouth permit, an SCC emission factor listing, and another copy of the BACT definition previously provided.
24. 89-05-02 Ultrasystems Development Corporation letter to VDAPC-DCS, ULTRA-COGEN - Significant Impact Distances.
25. 89-05-10 Town of Altavista Special Use Permit for Ultra Cogen.
26. 89-05-10 VDAPC-DCS letter to Ultrasystems Development Corporation, approving revised modelling protocols for Southhampton and Altavista sites, subject to conditions stated in the letter.
27. 89-05-12 Ultrasystems Development Corporation letter, ULTRA COGEN Air Permits, May 10 meeting.
28. 89-05-15 VDAPC-DTE (John Schubert) Memorandum to File, Minutes of Ultrasystems/VDAPC May 10, 1989 Meeting.
29. 89-05-18 VDAPC-DCS Memorandum to File, May 11, 1989 Meeting with Ultrasystems Representatives.
30. 89-05-23 VDAPC-AEDTS letter to Ultrasystems Development Corporation, (R. Kennel), confirming VDAPC positions (decisions) on BACT and modelling requirements for the four sites being proposed by Ultrasystems Development Corporation.

31. 89-05-24 Ultrasystems Development Corporation letter to VDAPC-AEDTS, giving Ultrasystems Development Corporation understandings of available options under NOx/SO<sub>2</sub> adverse ambient impacts.
32. 89-05-31 VDAPC-AEDTS letter to Ultrasystems Development Corporation (Kennel) clarifying NOx/SO<sub>2</sub> BACT under adverse ambient impacts.
33. 89-06-01 Ultrasystems Development Corporation, Incorporated letter to VDAPC-DTE, Curtailment of Host Boiler Operations, transmitting copies of host - Ultrasystems Development Corporation letters, same subject.
34. 89-06-28 Ultrasystems Development Corporation letter to VDAPC-DTE transmitting excerpts from Energy Services Agreements with hosts.
35. 89-07-17 VDAPC-AEDTS letter to Ultrasystems Development Corporation, giving estimated schedule for completion of processing first (Altavista) application.
36. 89-07-18 Ultrasystems Environmental Services letter to VDAPC Region III, ULTRA COGEN - Altavista Materials Handling Systems Description, with revisions to SAPCB Form 7.
37. 89-07-25 VDAPC-AEDTS letter to Ultrasystems Development Corporation documenting request for Ultrasystems position re: host source emissions, with proposed host-to-VDAPC letter requesting permit.
38. 89-08-03 VDAPC-DCS letter to Ultrasystems Development, Incorporated (ESD) transmitting preliminary draft data for other source modelling at Altavista, Franklin and Hopewell.
39. 89-08-07 Ultrasystems Environmental Services letter to VDAPC-DTE, ULTRA COGEN Projects: Maximum Facility Emissions.
40. 89-08-08 VDAPC (Ultrasystems Working Group) memorandum to DCS modelers clarifying Ultrasystems planned operating modes for boilers.
41. 89-08-09 Ultrasystems Environmental Services letter to VDAPC-DTE, providing expected fuel use rates for auxiliary boilers.
42. 89-08-09 Ultrasystems Development, Incorporated (ESD) Facsimile Transmission to VDAPC-DTE, conveying Coen Company August 8, 1989 memo, ULTRA COGEN Virginia.
43. 89-08-16 VDAPC-AEDTS letter to EPA III (Air Management Division) concerning problems in implementing March 16, 1988 modelling guidance.

44. 89-08-21 VDAPC-AEDTS letter to Ultrasystems Development Corporation, advising of progress in review of applicant modeling reports.
45. 89-08-25 Ultrasystems Development Corporation letter to J. Schubert giving standby boiler heat release rates.
46. 89-09-08 VDAPC-DTE schematic of primary coal boilers and associated systems.
47. 89-09-08 VDAPC calculations sheet for primary coal coal boilers.
48. 89-09-15 VDAPC-AEDTS letter to Ultrasystems Development Corporation, transmitting a generic draft permit for the four proposed cogeneration sites.
49. 89-09-19 Ultrasystems Development Corporation letter to John M. Daniel outlining name change for projects.
50. 89-09-22 Ultrasystems Environmental Services letter to VDAPC - Region VI, transmitting diagram of belt conveyor with cover to be used at the four proposed sites.
51. 89-09-28 Protec letter to Ultrasystems (Environmental Division), Portec Lime Slaker Dust Suppression, with attached diagram. Note: This letter was transmitted to VDAPC-AEDTS the same day, as response to VDAPC query on Ultrasystems Development Corporation intentions for control of emissions from slaker.
52. 89-09-28 VDAPC calculations sheet for auxiliary boiler.
53. 89-10-05 KBN Engineering letter to VDAPC-DCS, Ultra Cogen - Altavista: SO<sub>2</sub> and NO<sub>x</sub> Impact Analyses of all Sources at Maximum Allowable Emissions and Certain Sources at 120 Percent of Actual Emissions.
54. 89-10-18 Ultrasystems Development Corporation letter to VDAPC (L. Alexander) describing fugitive dust control systems.
55. 89-10-19 Ultrasystems Development Corporation letter to VDAPC (L. Alexander) outlining coal and wood crusher systems.
56. 89-10-19 VDAPC-DTE Toxics Analysis.
57. 89-10-27 Department of Air Pollution Control, Division of Technical Evaluation/Region III engineering analysis.
58. 89-11-01 VDAPC-DCS (Austin) Memorandum to Director, Division of Computer Service Review of Air Quality Impact Analysis for Ultrasystems Altavista. Final

analysis data received from Ultrasystems Development Corporation on October 26, 1989, and amended on February 12, 1990.

59. 89-12-06 Ultrasystems Development Corporation letter (R. Kennel) to VDAPC-AEDTS regarding Response to EPA Comments on Draft Permit for Hadson Power 12 - Altavista.
60. 89-12-11 Ultrasystems Environmental Services document entitled "Response to EPA Comments on the Proposed Hadson Power 12 - Altavista Project dated November 30, 1989."
61. 90-01-02 KBN letter (R. McCann) to VDAPC-DCS regarding Hadson Power 12 - Altavista Cogeneration Project: Use of Trinity Method for Determining Operating Data.
62. 90-01-19 KBN letter (R. McCann) to VDAPC-DCS regarding Intermediate Terrain, Hadson Power 12 - Altavista Project.
63. 90-02-05 KBN letter (R. McCann) to VDAPC-DCS regarding Hadson Power 12 - Altavista Cogeneration Project: Intermediate Terrain Modeling Analysis.
64. 90-02-05 Ultrasystems Environmental Services letter (P. Hurt) transmitting a document entitled "Air Quality Analysis of Standby Boiler and Startup/Shutdown Operations for the Hadson Power 12 - Altavista Project."
65. 90-02-05 Ultrasystems Development Corporation letter (R. Kennel) to VDAPC (T. Henderson) regarding Hadson Power 12 - Altavista Draft Permit Changes.
66. 90-02-09 VDAPC Region III Board Presentation.
67. Department of Air Pollution Control notification letter to the Altavista Town Manager, dated May 27, 1988.
68. Department of Air Pollution Control notification letter to Shenandoah National Park, dated May 27, 1988.
69. Federal NSPS Regulations Part 60 Subpart Da, Standards of Performance for Electrical Utility Steam Generating Units.
70. Federal NSPS Regulations Part 60 Subpart Db, Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units.
71. Federal NSPS Regulations Part 60 Subpart Kb, Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for



Which Construction, Reconstruction, or Modification Commenced After July 23, 1984.

72. 93-11-02 LG&E - Westmoreland Altavista letter and application to increase the BTU rating of the two Babcock & Wilcox boilers and the Nebraska auxiliary boiler and to implement the use of #2 fuel oil as a startup fuel for the #2 primary coal boiler.
73. 93-11-24 LG&E - Westmoreland Altavista revised page 9 of the Form 7.
74. 93-11-24 Boiler Specification sheets for the Babcock & Wilcox boilers and the Nebraska auxiliary boiler.
75. 96-02-08 Air permit modification application.
76. 96-03-26 Distillate oil storage tank specification.
77. 96-04-08 Vacuum blower arrangement clarification.
78. 96-04-10 Distillate oil storage tank vapor pressure respecification.
79. 2006-11-09 Application for CO BACT limit change and increased wood combustion projects.
80. 2007-01-10 Submittal with additional information regarding CO BACT, emission factors, dispatch modeling, stack parameters, and wood combustion project.
81. 2007-03-28 Submittal with Article 6 BACT analysis for wood combustion project.
82. 2007-04-30 Submittal containing description of dispatch model, reasoning for selection of excludable emissions (demand growth) projection, and emissions calculations for PAE-BAE applicability test.
83. 2007-06-06 Submittal of SERC report and VA SCC reports as supporting documentation for PAE-BAE test assumptions.
84. 2007-06-12 Email clarifying difference between SERC report and modeled demand growth.
85. 2007-06-14 Local Governing Body Certification
86. 2007-07-02 Email and attached Town of Altavista Special Use Permit (amended)
87. 2007-13-09 Submittal of additional Article 6 BACT information